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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/624,225 | 07/22/2003 | Nirmal K. Sinha | GRA31 P-303 | 6962 |

277 7590 01/11/2006

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EXAMINER

PEARSE, ADEPEJU OMOLOLA

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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1761

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/624,225

Applicant(s)

SINHA ET AL.

Examiner

Adepeju Pearse

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
4. Claims 1-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kraut et al (U.S. Reg. No. H1014) in view of Hiroto (JP60078536), Kahn et al (U.S. Pat. No. 4,350,711) Wettlaufer (U.S. Pat. No. 6,479,092) and Phillips (U.S. Pat. No. 6,254,919). With regard to claim

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1, Kraut et al disclose a method of making cherries comprising the steps of providing brined cherries, leaching of the cherries to lower the level of residual sulfur dioxide of 100ppm or less, which encompasses 50ppm or less as claimed by applicant (col 1 lines 33-34, col 2 lines 24-), and then finally adding flavor and sugar (col 2 lines 59-61). However, Kraut et al failed to disclose freezing the cherries in water and using an infusion bath comprising cherry juice. Hirotomo teaches a fruit such as cherry having high sugar content. The fruit is washed with water, drained and frozen preferably within 60minutes with a quick freezer in order to prevent the fruit pulp from damage. It would be expected as an obvious alternative step as taught by Hirotomo to freeze the cherries in order to arrive at the same freezing point of the cherries. The frozen fruit is immersed in an aqueous solution of sucrose and hereby having a sugar content of 30 to 55%. It would be obvious to one of ordinary skill in the art to modify Kraut et al with Hirotomo because freezing the cherries would prevent pulp damage and also it would not involve an inventive step to utilize cherry juice or any other type of flavor in the infusion bath because it depends on consumer preference.

5. With regard to claims 2-3, Kraut et al disclose adding flavor and sugar to the processed cherries. However, kraut et al failed to disclose the temperature of the cherry juice. Kahn et al teach a method of infusing fruits such as cherries (col 1 lines 57-58) with sugar solids in infusion baths at a temperature from about 45°F to about 120°F (col 6 lines 5-7). Kahn et al is silent as to using cherry juice in the infusion process. However, it would be obvious to one of ordinary skill in the art to utilize cherry juice or any other type of flavor in the infusion bath in order to improve the texture and flavor of the final infused fruit product, or to enhance the stability of the fruit against possible leakage of the infused fruit during storage.

6. With regard to claims 4 and 7, Kraut et al disclose drying the cherries in order to maintain only a minimum of free syrup (col 5 lines 13-18).
7. With regard to claims 5-6, Kraut et al disclose leaching of the cherries to lower the level of residual sulfur dioxide of 100ppm or less, which encompasses 10ppm or less as recited by applicant (col 1 lines 33-34, col 2 lines 24-).
8. With regard to claims 8-9, Kraut et al failed to disclose the moisture content of the cherries. However, Kahn et al teach a method of infusing fruits such as cherries, which after drying has a moisture content of about 15 to 28% in order to improve microbiological stability (col 7 lines 12-19). This range is within applicant's recited range. It would have been obvious to one of ordinary skill in the art to modify Kraut et al with Kahn et al by having cherries with reduced moisture content in order to improve microbiological stability.
9. With regard to claims 12-14, Kraut et al disclose that all process was accomplished in less than about 5 days (see claims 4 and 5).
10. With regard to claims 15 and 16, Kraut et al in view of Kahn et al disclose infused cherry products. It would be obvious to one of ordinary skill in the art to expect that these products are value-added fruit products.
11. With regard to claims 10-11, Kraut et al failed to disclose the water activity of the cherries. However, Wettlaufer teaches a method for infusing fruit such as cherries (col 10 lines 27-35). In addition Wettlaufer teaches that a water activity range of 0.4-0.64 is desirable for good storage life of the product, which is within applicants recited range (col 9 lines 10-12). It would have been obvious to one of ordinary skill in the art to modify Kraut et al with Wettlaufer by producing cherries having a water activity in this range in order to have good storage life.

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12. With regard to claims 17 and 18, Kraut et al disclose a method of making cherries comprising the steps of providing brined cherries, leaching of the cherries to lower the level of residual sulfur dioxide of 100ppm or less, which encompasses 50ppm or less as recited by applicant (col 1 lines 33-34, col 2 lines 24-), and then finally adding flavor and sugar (col 2 lines 59-61). The leached cherries are immersed in a sweetener syrup comprising a red coloring agent (abstract). Red cabbage juice is a well-known red coloring agent in the art and it would not have involved an inventive step to utilize this colorant. Kraut et al also disclose fruit solids of about 35 Brix to about 45 Brix (col 4 lines 66-68). However, Kraut et al failed to disclose freezing the cherries in water or show a pasteurizing step. Hirotoimo teaches a fruit such as cherry having high sugar content. The fruit is washed with water, drained and frozen preferably within 60minutes with a quick freezer in order to prevent the fruit pulp from damage. It would be expected as an obvious alternative step as taught by Hirotoimo to freeze the cherries in order to arrive at the same freezing point of the cherries. Kahn et al teach a method of infusing fruits and that conventional food additives maybe added to the post-infusion bath including flavoring agents, colorants, etc. Suitable flavorings include caramel, fruit, etc (col 7 lines 58-64). Phillips teaches a method of preparing shelf-stable fruit such as tart cherries by immersing fruit in a bath of sugar syrup and then drying with hot air at a temperature effective for pasteurization (col 3 lines 52-67). Kraut et al is silent as to adding lemon juice, however, it would be obvious to one of ordinary skill in the art to modify Kraut et al with the teachings of Hirotoimo, Phillips and Kahn et al by utilizing any flavoring agent such as lemon juice or natural black sweet cherry flavor as recited by applicant and utilizing a pasteurizing step in order to impart stability of the product.

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13. With regard to claim 19, Kraut et al failed to disclose a pasteurization temperature.

However, Phillips discloses pasteurizing at an effective temperature such as from about 80°C (176°F) to about 95°C (203°F) (col 5 lines 25-26). This range is within applicants' recited range. It would be obvious to one of ordinary skill in the art to expect that this temperature would be effective for stability of the product. Phillips is silent as to the cooling temperature. However, it would be obvious to one of ordinary skill in the art to expect that the product would be cooled to about room temperature as recited by applicant in order to complete the process.

14. With regard to claim 20, Kraut et al failed to disclose a temperature at which to add the flavorant. However, it would be obvious to one of ordinary skill in the art to expect that flavorants tend to destabilize at high temperatures and therefore need to be added at or near room temperature.

15. With regard to claim 21, Kraut et al disclose a method of making cherries comprising the steps of providing brined cherries, leaching of the cherries to lower the level of residual sulfur dioxide of 100ppm or less, which encompasses 50ppm or less as recited by applicant (col 1 lines 33-34, col 2 lines 24-), and then finally adding flavor and sugar (col 2 lines 59-61). However, Kraut et al failed to disclose freezing the cherries and infusing in a two-step process. Hiroto teaches a fruit such as cherry having high sugar content. The fruit is washed with water, drained and frozen preferably within 60minutes with a quick freezer in order to prevent the fruit pulp from damage. The frozen fruit is immersed in an aqueous solution of sucrose and hereby having a sugar content of 30 to 55%. It would be expected as an obvious alternative step as taught by Hiroto to freeze the cherries in order to arrive at the same freezing point of the cherries. Kraut et al is silent as to infusing the brined cherries with red tart cherry juice. However, Kahn et al

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teach a method of infusing fruits with food additives including flavoring agents, colorants, etc. Suitable flavorings include caramel, fruit, etc (col 7 lines 58-64). The infusion process maybe limited to the use of two infusion baths so long as the about 32-55% water-soluble solids content is reached in the fruit (col 4 lines 1-5). Kahn et al further teach that the fruit is immersed in the first bath until equilibrium is attained and then immersed in a second bath until equilibrium is attained. Kahn et al is silent as to the period of time this takes. However, it would be expected that the greater the level of Brix in the infusion bath, the lesser the amount of time needed for infusion. It would be obvious to one of ordinary skill in the art to utilize a high Brix infusion bath for the product to reduce time. It would be obvious to one of ordinary skill in the art to expect that any suitable fruit/juice could be utilized including red tart cherry juice as a matter of consumer preference. Phillips teaches Phillips teaches a method of preparing shelf-stable fruit such as tart cherries by immersing fruit in a bath of sugar syrup and then drying with hot air at a temperature effective for pasteurization such as from about 80°C (176°F) to about 95°C (203°F) (col 5 lines 25-26), which is about applicant's temperature range in order to make the product shelf stable. It would be obvious to one of ordinary skill in the art to dry the product at this temperature in order to make it stable.

16. With regard to claims 22 and 25, Kraut et al failed to disclose freezing cherries in water. However, Hirotoimo teaches a fruit such as cherry having high sugar content. The fruit is washed with water, drained and frozen preferably within 60minutes with a quick freezer in order to prevent the fruit pulp from damage. It would be expected as an obvious alternative step as taught by Hirotoimo to freeze the cherries in order to arrive at the same freezing point of the cherries. With regard to claim 23, Kraut et al disclose a method of making cherries comprising the steps of

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providing brined cherries, leaching of the cherries to lower the level of residual sulfur dioxide of 100ppm or less, which encompasses 50ppm or less as recited by applicant (col 1 lines 33-34, col 2 lines 24-), and then finally adding flavor and sugar (col 2 lines 59-61). The leached cherries are immersed in a sweetener syrup consisting essentially of high fructose corn syrup comprising a red coloring agent (col 1 lines 60-66). Red cabbage juice is a well-known red coloring agent in the art and it would not have involved an inventive step to utilize this colorant. Kraut et al also disclose a Brix value from about 65 to about 75 (col 5 lines 1-2). However, Kraut is silent as to the addition of lemon juice. Kahn et al teach a method of infusing fruits and that conventional food additives maybe added to the post-infusion bath including flavoring agents, colorants, etc. Suitable flavorings include caramel, fruit, etc (col 7 lines 58-64). Phillips teaches a method of preparing shelf-stable fruit such as tart cherries by immersing fruit in a bath of sugar syrup and then drying with hot air at a temperature effective for pasteurization (col 3 lines 52-67) such as from about 80°C (176°F) to about 95°C (203°F) (col 5 lines 25-26), which is about applicant's temperature range. Kraut et al is silent as to adding lemon juice, however, it would be obvious to one of ordinary skill in the art to modify Kraut et al with the teachings of Phillips and Kahn et al by utilizing any flavoring agent such as lemon juice or natural black sweet cherry flavor as recited by applicant and utilizing a pasteurizing step in order to impart stability of the product.

17. With regard to claim 24, Kraut et al disclose freezing the processed product (col 5 lines 63-67).

18. With regard to claim 26, Kraut et al disclose brined cherries such as whole cherry fruit, fruit pieces, etc (col 2 lines 30-36).


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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adepeju Pearse whose telephone number is 571-272-8560. The examiner can normally be reached on Monday through Friday, 8.00am - 4.30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Peju Pearse
Art Unit 1761


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